II. CLAIMS

1. (Currently Amended) A method of processing a speech frame in a radio system, comprising

   channel-decoding a speech frame having propagated over a radio path;

   if the speech frame is free of defects on the basis of the channel-decoding,

   it is inferred, only from the value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes, whether the speech frame contains speech that is decodable by means of a speech decoder,

   and if, according to the inference, the speech frame does contain speech that is decodable by means of a speech decoder, the speech frame is decoded by means of a speech decoder,

   and if, according to the inference, the speech frame does not contain speech that would be decodable by means of a speech decoder, the speech frame is not decoded.

2. (Original) A method according to claim 1, wherein the speech frame is encrypted, whereby decryption of the speech frame is performed in the method.

3. (Original) A method according to claim 2, further comprising:

   performing the decryption of the speech frame after the channel-decoding, prior to the inference.

4. (Original) A method according to claim 3, wherein if, according to the inference, the speech frame does not contain speech that would be decodable by means of a speech decoder, a bad frame indication is sent to the speech decoder.

5. (Original) A method according to claim 3, wherein if, according to the inference, the speech frame does not contain speech that would be decodable by means of a speech decoder, a homing sequence is sent to the speech decoder.

6. (Original) A method according to claim 1, wherein the symbols in the speech frame that are protected by channel coding are also used in the inference.

7. (Original) A method according to claim 1, wherein the inference is performed by utilizing probability calculation.

8. (Original) A method according to claim 7, wherein in the inference the probability of the value of at least one speech parameter is calculated.

9. (Original) A method according to claim 1, wherein in the inference the probability of change in the value of at least one speech parameter is calculated.

10. (Original) A method according to claim 9, wherein a threshold value has been defined for the probability of change in the value of a parameter during a given number of speech frames.

11. (Original) A method according to claim 10, wherein if the probability of change is lower than the threshold value, it is inferred that the speech frame does not contain speech that would be decodable by means of a speech decoder.

12. (Currently Amended) A radio system comprising:

    a channel decoder for channel-decoding a channel-coded speech frame having propagated over a radio path;

    a speech decoder for decoding the speech frame; and

    inferring means for inferring, only from the value of at least one speech parameter in the channel-decoded speech frame and not using channel codes, whether the speech frame contains speech that is decodable by means of the speech decoder if the speech frame is free of defects according to the channel decoder;

    and the speech decoder is arranged to decode the speech frame if, according to the inference, the speech frame does contain speech that is decodable by means of the speech decoder; and the speech decoder is arranged not to decode the speech frame if, according to the inference, the speech frame does not contain speech that would be decodable by means of the speech decoder.

13. (Original) A radio system according to claim 12, wherein the speech frame is encrypted, whereby the radio system comprises a decryption device for performing decryption of the speech frame.

14. (Original) A radio system according to claim 13, wherein the decryption device is connected between the channel decoder and the inferring means.

15. (Original) A radio system according to claim 14, wherein the inferring means are arranged to send a bad frame indication to the speech decoder if, according to the inference, the speech frame does not contain speech that would be decodable by means of the speech decoder.

16. (Original) A radio system according to claim 14, wherein the inference means are arranged to send a homing sequence to the speech decoder if, according to the inference, the speech frame does not contain speech that would be decodable by means of the speech decoder.

17. (Original) A radio system according to claim 12, wherein the inferring means also use in the inference symbols in the speech frame that are protected by channel coding.

18. (Original) A radio system according to claim 12, wherein the inferring means perform the inference by utilizing probability calculation.

19. (Original) A radio system according to claim 18, wherein the inferring means calculate in the inference the probability of the value of at least one speech parameter.

20. (Original) A radio system according to claim 12, wherein the inferring means calculate in the inference the probability of change in the value of at least one speech parameter in the speech frame to be processed.

21. (Original) A radio system according to claim 20, wherein in the inferring means, a threshold value has been defined for the probability of change in the value of a parameter during a given number of speech frames.

22. (Original) A radio system according to claim 21, wherein the inferring means infer that the speech frame does not contain speech that would be decodable by means of a speech decoder if the probability of change is lower than the threshold value.

23. (Currently Amended) A mobile station in a radio system, comprising:

    a channel decoder for channel-decoding a channel-coded speech frame having propagated over a radio path;

    a speech decoder for decoding the speech frame; and

    inferring means for inferring, only from the value of at least one speech parameter in the channel-decoded speech frame and not using channel codes, whether the speech frame contains speech that is decodable by means of the speech decoder if the speech frame is free of defects according to the channel decoder;

    and the speech decoder is arranged to decode the speech frame if, according to the inference, the speech frame does contain speech that is decodable by means of the speech decoder; and the speech decoder is arranged not to decode the speech frame if, according to the inference, the speech frame does not contain speech that would be decodable by means of the speech decoder.

24. (Currently Amended) A network of a radio system, comprising:

    a channel decoder for channel-decoding a channel-coded speech frame having propagated over a radio path;

    a speech decoder for decoding the speech frame; and

    inferring means for inferring, only from the value of at least one speech parameter in the channel-decoded speech frame and not using channel codes, whether the

speech frame contains speech that is decodable by means of the speech decoder if the speech frame is free of defects according to the channel decoder;

and the speech decoder is arranged to decode the speech frame if, according to the inference, the speech frame does contain speech that is decodable by means of the speech decoder; and the speech decoder is arranged not to decode the speech frame if, according to the inference, the speech frame does not contain speech that would be decodable by means of the speech decoder.

25. (Previously Presented) The method of claim 1 further comprising processing the speech frame in a terrestrial trunked radio system.

26. (Previously Presented) The radio system of claim 12 wherein the radio system further comprises a terrestrial trunked radio system.

27. (Previously Presented) The mobile station of claim 23 further comprising the radio system comprising a terrestrial trunked radio system.

28. (Previously Presented) The network of claim 24 further comprising the radio system being a terrestrial trunked radio system.

29. (Previously Presented) The method of claim 1 wherein the speech frame is examined to determine a value for the at least one speech parameter in the channel decoded speech frame.